6. A NEW REPORT ON PIGMY HOG *SUS SALVANIUS* (HODGSON) FROM WEST BENGAL

In December, 1989 a meter high dome-shaped nest made of grass and other vegetation was seen in a grassland in Dhupjhora block of 8.61 sq. km Gorumara Wildlife Sanctuary. The nest was thought to be that of Pygmy hog (*Sus salvanius*). Pygmy hog has not earlier been reported from this sanctuary. On further enquiry it was found that a few such nests had been sighted by mahouts of the departmental elephants within the same block before. The forest is a 'low alluvial savannah woodland' (Champion and Seth 1968). Other notable fauna of the Sanctuary are: the Indian rhinoceros *(Rhinoceros unicornis)*, gaur (*Bos gaurus*), hog deer (*Axis porcinus*), and tiger (*Panthera tigris*). Some Black-necked storks (*Xenorhynchus asiaticus*) were also present.

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Reference

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7. FEEDING BEHAVIOUR OF LONGTAILED TREE MOUSE *VANDELEURIA OLERACEA* (BENNETT) AND INDIAN DESERT GERBIL *MERIONES HURRIANAE* ON SYNCARPS OF *XANTHIUM INDICUM* KOENIG

(With three text-figures)

The Longtailed tree mouse (*Vandeleuria oleracea*) is a facultative arboreal rodent, often seen living in the nests of *Ploceus philippinus* (Ali and Ambedkar 1956, Ambedkar 1980), *P. megarhynchus, P. benghalensis* and *P. manyar* (Ambedkar 1968). The Indian Desert Gerbil (*Meriones hurrianae*) is an obligatory terrestrial rodent, never seen climbing trees or to take refuge in the nests of weaver birds. Though both the rodents prefer different habitats, they feed on the cypsels of *Xanthium indicum* and have characteristic gnawing patterns of their own.

Xanthium indicum is a foetid smelling weed, which grows gregariously in fallow and agriculture lands. Like other members of Asteraceae, this plant bears a compound capitulum type of inflorescence. Its fruit is of the cypsela type. Two cypsels develop in each capitulum. Both the cypsels of a capitulum are included in the hardened spiny involucre, at maturity known as syncarp. Besides many are present at the apex.

The sessile syncarp is 2-celled, having a cypsel in each chamber. The unequal chambers have a septa between them. The two terminal massive spines occur at right angles to the septa of the syncarp (Fig. 1). When the syncarp is divided into two halves along the septa, each half gets one terminal spine and only one cypsela gets exposed (Fig. 2). While it is divided across the septa, both the terminal spines are split, each half gets split in the same plane and both the cypsels are exposed (Fig. 3).

This study of the gnawing behaviour of *V. oleracea* and *M. hurrianae* on *X. indicum* were conducted in the districts of Alwar and Jaipur. Their gnawing habits are described below.

Gnawing pattern of *V. oleracea*: As many as 222 residues of syncarps, gnawed by *V. oleracea* were collected at random from old nests of *Ploceus philippinus* and the cages of captive mice for sampling. *V. oleracea* avoids both 'basal' as well as 'terminal' gnawing, and starts gnawing from the middle of the syncarp. First all the smaller spines are removed, then the dried shield of the involucre is gnawed to expose one or both the cypsels.

Examination of the 222 gnawed syncarps

revealed that *V. oleracea* adopts three patterns of gnawing (Table 1).

TABLE 1
GNAWING PATTERNS SHOWN BY *V. OLERACEA*

Serial No.	Gnawing pattern		
	A	B	C
1. Gnawed syncarps	137	55	30
2. % of gnawed syncarps	61.71	24.77	13.51

(A = gnawing parallel to septa, B = gnawing across septa, C = intermediate gnawing)

1. Gnawing parallel to septa: This is the most preferred gnawing pattern and starts parallel to the septa. Hence at a time only one cell is opened. When the cypsel of one chamber is eaten the septa is gnawed to open the next chamber for the second cypsel. When the syncarp is gnawed thus, generally one terminal spine is left behind on the remaining portion of the syncarp.

2. Gnawing across septa: This is a less preferred method of gnawing which starts across the septa just at the point where the septa joins the involucre, and results in both the cells getting opened. When this method is adopted generally both the terminal spines may be found intact on the last remaining piece of the syncarp.

3. Intermediate gnawing: This is an intermediate condition of both patterns described earlier. In this method, both the chambers are opened at a time but gnawing begins at A or B or C or D.

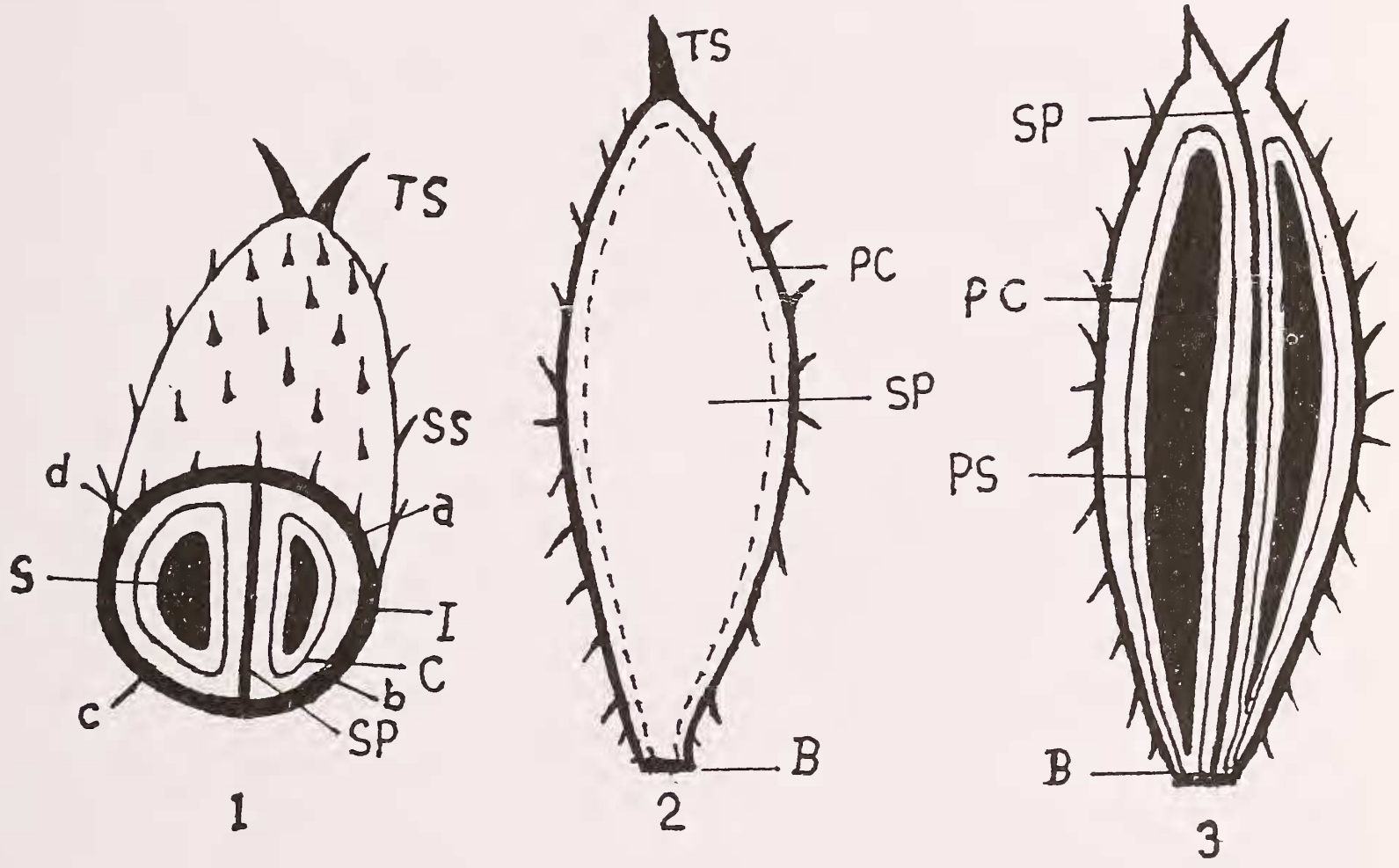

Fig. 1. Upper half of syncarp of *Xanthium indicum* in T.S. : septa is situated at right angle to the terminal spines. Fig. 2. View of either half of the syncarp of *Xanthium indicum* in L.S. when bisected along the septa. Fig. 3. View of the either half of the syncarp of *Xanthium indicum* in L.S. when bisected across the septa.
Abbreviations: TS: Terminal spines; SS: Small spines; I: Involucre cover; C: Cypsela; SP: Septa; S: Seed; B: Base of syncarp; PC: Position of cypsela; PS: Position of seed; a, b, c, d: Points on involucre cover where 'intermediate' gnawing is started.

Gnawing pattern of *M. hurrianae:* Unlike *V. oleracea*, *M. hurrianae* gnaws the basal portion of the syncarp. Almost the entire lower half is gnawed to

devour both the cypsels leaving behind the terminal spines intact. Perhaps to avoid the terminal spines, 'basal eating' is preferred by this rodent.

CONCLUSION

It is clear that *V. oleracea* and *M. hurrianae* have characteristic patterns of gnawing syncarps of *X. indicum* and both avoid the terminal larger spines. By seeing a gnawed syncarp of *X. indicum* one could get a clue whether it is eaten by *V. oleracea* or *M. hurrianae*. It is also worthy to record that in times of scarcity, seeds of weeds like *X. indicum* are used by rodents. Thus, they help in weed control also.

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8. INTERACTION BETWEEN BLACKBUCK *ANTELOPE CERVICAPRA* (LINN.) AND INDIAN FOX *VULPUS BENGALENSIS* (SHAW)

On 8th February 1991, at dusk Mr. Rajpal Singh and I were sitting near artificial water hole at the Tal Chhapar Blackbuck Sanctuary in Rajasthan, watching a mixed herd of blackbuck grazing about 200 m away. Separated from the main herd, and about a 100 m from us was a party of four bucks grazing. These four were gradually moving towards us, spaced about 3 to 5 m from each other.

When it was about to get dark we saw an Indian fox midway between the mixed herd and the buck party, trotting through the grass towards us. As it passed close to the bucks, the buck nearest to it rushed towards the fox with lowered head. The fox changed its course to avoid the blackbuck and came again towards the water. When it again passed near the bucks, one of the bucks chased the fox for a long distance till it disappeared in the grass. During these interactions no alarm was shown by the herd but the other three members of the buck party assumed an alert posture with neck held vertically.

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9. PROBABLE OCCURRENCE OF WHITEFRONTED GOOSE *ANSER ALBIFRONS* (SCOPOLI) IN ANDHRA PRADESH

The Rollapadu Wildlife Sanctuary (*c.* 15° 52', 78° 18' E), Kurnool district, Andhra Pradesh harbours a few hundred Barheaded geese *Anser indicus* every winter. Whenever I came across a flock during my earlier stay in the Sanctuary between 1985 and 1988 I kept a watch for the Greylag geese, *Anser anser* which has not been recorded from here. However, during my present study period under the Grassland Ecology Project, on 31 October 1992 I saw a Whitefronted goose *Anser albifrons* with a flock of 17